YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
1947 Galileo Court, Suite 103; Davis, CA 95618
Phone (530) 757-3650 Fax (530) 757-3670

FACILITY NUMBER: 00044
SIC CODE: 5171

PROPOSED AUTHORITY TO CONSTRUCT
C-09-114
IS HEREBY GRANTED TO

BP WEST COAST PRODUCTS, LLC
1601 South River Road
West Sacramento, CA 95691

EQUIPMENT LOCATION: 1601 South River Road; West Sacramento, CA

TO CONSTRUCT

PROCESS DESCRIPTION: Bulk Storage of Gasoline; Modification of P-43-01(a) to replace the existing vapor mounted resilient toroid primary seal with a new mechanical shoe primary seal

EQUIPMENT INVENTORY: 2,814,000 gallon welded storage tank (#1)

- Total Billing: Schedule 5, 2,814,000 gallons -

CONTROL EQUIPMENT INVENTORY:

Internal steel floating roof (welded) with a mechanical shoe primary seal and rim-mounted secondary seal

PERMITTED EMISSION LIMITS:

Pollutant	Daily [lb]	Qtr #1 (Jan 1-Mar 31) [lb]	Qtr #2 (Apr 1-June 30) [lb]	Qtr #3 (July 1-Sept 30) [lb]	Qtr #4 (Oct 1-Dec 31) [lb]	Yearly [tons]
VOC	N/A	1,442	1,768	1,949	1,510	3.33

PERMITTED PROCESS LIMITS:

	Daily [gallons]	Qtr #1 (Jan 1-Mar 31) [million gallons]	Qtr #2 (Apr 1-June 30) [million gallons]	Qtr #3 (July 1-Sept 30) [million gallons]	Qtr #4 (Oct 1-Dec 31) [million gallons]	Yearly [million gallons]
Gasoline	N/A	49.85	49.85	49.85	49.85	199.4

The following information is included to inform and assist the Permit Holder in achieving compliance with applicable provisions of Federal, State, and District Rules and Regulations. The following set of referenced regulations are not intended to be either comprehensive or exclusive, nor are they intended to be emission limiting permit conditions, but they are still applicable rules of the District. Occasionally laws are amended. The amended versions of the referenced rules shall be deemed to be in effect. **It is the Permit Holder's responsibility to comply with all applicable Rules and Regulations.**

1. After construction of all listed process and control equipment is complete, as determined by the District, the ATC Holder shall have 45 calendar days to conduct tests and perform other necessary initial adjustments on the equipment. During this time, this Authority to Construct and its conditions shall function as a temporary Permit to Operate. Any operation of the equipment beyond this period without either District receipt of a valid Permit to Operate Notification Card or written extension from the District, will be considered operation without a permit and subject to enforcement action. The ATC Holder shall provide the District, in writing, a notice prior to commencing the 45-day start-up period. [District Rule 3.1, §402]

2. The District requires an inspection of the equipment after completion of the construction and prior to the issuance of the Permit to Operate. [District Rule 3.1, §402]

3. An authorization to construct shall remain in effect only until the application for Permit to Operate is granted or denied; however, such an authorization shall not remain in effect beyond two years from the date of issuance unless the District finds that the time required for construction requires an extension and grants one or more extensions, for a total time not to exceed five years from the date of issuance. [District Rule 3.1, §407]

The following set of conditions are established by the District to provide enforceable operating parameters as authorized by California Health and Safety Code Section 42301 and District Rule 3.1, Section 402. If any of the rules and regulations referenced below are amended subsequent to the issuance date of this permit, resulting in the amended rule differing from or superseding the corresponding condition, then the Permit Holder shall be required to comply with the amended rule or regulation and shall no longer be required to comply with the superseded condition.

4. The tank shall only be used to store gasoline with a true vapor pressure less than 11.0 psia under actual storage conditions, as determined by the test methods specified in Section 602 of District Rule 2.21 or an alternative test method pursuant to Section 609 of District Rule 2.21. [District Rule 3.4 & District Rule 2.21, §609]

5. Organic liquid shall not be visible above the floating roof. [District Rule 2.21, §301.2]

6. The floating roof shall be in contact with the liquid contents (but not necessarily in complete contact with it) at all times except when the storage tank is completely

emptied, and subsequently refilled. During this period, emptying or refilling shall be a continuous process. [District Rule 2.21, §301.3]

7. The Permit Holder shall provide written notification to the Air Pollution Control Officer (APCO) at least seven (7) days prior to landing the floating roof on its legs. [District Rule 2.21, §301.4]

8. Vapor concentrations above an internal floating roof shall not exceed 30% of its lower explosive limit (LEL). [District Rule 2.21, §303.2]

9. The tank shall be equipped with at least three (3) viewing ports. The viewports shall be installed on the fixed roof an equidistance apart and in such a manner so that each viewport provides an unobstructed view of the tank wall and roof seal. An alternate number or size of viewports may be approved at the discretion of the APCO. [District Rule 2.21, §303.3]

10. Fixed roof support columns and wells shall be equipped with a sliding gasketed cover or with a flexible fabric sleeve. [District Rule 2.21, §305.1.a]

11. Ladder wells shall be equipped with a gasketed cover. The cover shall be closed at all times, with no visible gaps, except when the well must be opened for access. [District Rule 2.21, §305.1.b]

12. Slotted and solid guidepoles shall comply with the requirements specified in District Rule 2.21, Section 305.2.h. [District Rule 2.21, §305.1.c]

13. Vacuum breakers shall be equipped with a gasket, with no visible gaps, and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 2.21, §305.1.d & §305.2.b]

14. Rim vents shall be equipped with a gasket, with no visible gaps, and shall be set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 2.21, §305.1.d & §305.2.c]

15. Each access hatch and gauge float well shall be equipped with a cover that is gasketed and bolted. The cover shall be closed at all times, with no visible gaps, except when the hatch or well must be opened for access. [District Rule 2.21, §305.1.d & §305.2.g]

16. There shall be no holes, tears, or openings which allow the emission of organic vapors through the secondary seal. There shall be no holes, tears, or openings in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric. [District Rule 2.21, §306.1]

17. The geometry of the shoe shall be such that the gap between the shoe and the tank shell shall not exceed twice the seal gap criteria for a vertical length greater than 18 inches. [District Rule 2.21, §306.3]

18. No gap between the tank shell and the primary seal shall exceed:
    a. 1-1/2 inch.
    b. 1/2 inch for a cumulative length greater than 10% of the circumference of the tank.
    c. 1/8 inch for a continuous length of more than 10% of the circumference of the tank.
    d. 1/8 inch for a cumulative length greater than 30% of the circumference of the tank. [District Rule 2.21, §306.4]

19. The secondary seal shall extend from the floating roof to the storage tank shell and shall not be attached to the primary seal. [District Rule 2.21, §306.5]

20. No gap between the storage tank shell and the secondary seal shall exceed:
    a. 0.06 inch;
    b. 0.02 inch for a cumulative length greater than 5% of the circumference of the tank excluding gaps less than 1.79 inches from vertical weld seams. [District Rule 2.21, §306.5]

21. The secondary seal shall allow easy insertion of probes up to 1-1/2 inch in width in order to measure gaps in the primary seal. [District Rule 2.21, §306.7]

22. Organic liquids subject to District Rule 2.21 shall not be discarded to public sewers, stored in open containers, or handled in any other manner that would result in evaporation to the atmosphere. [District Rule 2.21, §314]

23. Degassing the tank shall be controlled by a system which collects and processes all organic vapors and gases and has an abatement efficiency of at least 90% by weight. The system shall be operated until the concentration of volatile organic compounds in the tank is less than 10,000 ppm expressed as methane as determined in accordance with the test method specified in Section 605 of District Rule 2.21. [District Rule 2.21, §315]

24. The Permit Holder shall submit a maintenance plan to the APCO at least seven (7) days prior to performing maintenance on any storage tank. The plan shall state the equipment Permit to Operate number (unit identification number), a detailed description of the maintenance to be performed, the expected duration of the maintenance, the reason that the maintenance is necessary, emission control measures that will be employed, and the effect of not performing the maintenance. [District Rule 2.21, §501]

25. The Permit Holder shall conduct the following monitoring and reporting in accordance with the District-approved report format:
    a. Visually inspect the secondary seal, floating roof, and deck fittings every three (3) months.
    b. Measure the vapor concentrations (expressed as the LEL) above the floating roof at a distance of no less than four (4) feet from the viewport or access

hatch, using an explosimeter that is calibrated in accordance with the manufacturer's specifications every three (3) months.

c. Perform complete gap measurements of the primary and secondary seals every ten (10) years and each time the tank is emptied and degassed.

d. Perform complete gap measurements of all deck fittings every ten (10) years and each time the tank is emptied and degassed.

The Permit Holder shall submit written notification to the APCO at least seven (7) days prior to performing the monitoring. All reports shall include sufficient detail to verify compliance with all applicable rule requirements and shall be submitted to the APCO within 45 calendar days after the monitoring work is completed. [District Rule 2.21, §502 & §503.1]

26. The Permit Holder shall maintain accurate records to demonstrate compliance with maintenance, monitoring, and reporting requirements, as specified in Section 504 of District Rule 2.21. These records shall be retained on site for a period of at least five (5) years and made available to the APCO upon request. [District Rule 2.21, §504]

27. The Permit Holder shall maintain records of the actual volume of gasoline transferred into this tank (including inter tank transfers) on a quarterly basis. Records shall be maintained for a period of five (5) years and shall be made readily available to the Air Pollution Control Officer upon request. [District Rule 3.4]

Fugitive Hydrocarbon Conditions:

28. All pump seals and compressor seals shall be inspected for leaks once during every manned operating shift. Leaks shall include any liquid leaks, visual vapor leaks, audible leaks, the presence of bubbles using soap solutions, or a leak identified by a vapor analyzer. [District Rule 2.23, §301.1.a]

29. Any leak which is identified during the inspection of components shall be measured to quantify emission concentrations according to EPA Reference Method 21. [District Rule 2.23, §301.1.b]

30. All components shall be inspected quarterly according to EPA Reference Method 21, except for the following:

    a. All inaccessible components shall be inspected annually according to EPA Reference Method 21.

    b. All threaded components and flanges shall be inspected for leaks according to EPA Reference Method 21 immediately after being placed in service and annually thereafter.

    c. The inspection frequency for components, except pump seals and compressor seals, may change to annually, provided that all of the following conditions are met:

        1. All components at the facility have been successfully operated and maintained with no liquid leaks and no major gas leaks exceeding 0.5 percent of the total components inspected per inspection period for twelve consecutive months, and

2. The above is substantiated by documentation and written approval obtained from the APCO.

d. Any annual inspection frequency approved by the APCO shall revert to quarterly, should any liquid leak or major gas leak exceeding 0.5 percent of the total components inspected per inspection period for twelve consecutive months be detected. [District Rule 2.23, §301.2, §301.3, §301.5, & §301.6]

31. All leaking components shall be affixed with brightly colored, weatherproof tags showing the date of leak detection. These tags shall remain in place until the components are repaired and reinspected. [District Rule 2.23, §301.7]

32. All non-critical components shall be successfully repaired or replaced within the following time periods after detection of the leak (as defined in District Rule 2.23) according to the table below: [District Rule 2.23, §302.1.a]

Type of Leak	Time Period[1]
Minor Gas Leak	14 Days
Major Gas Leak	5 Days
Major Gas Leak over 50,000 ppm	1 Day[2]
Major Liquid Leak	1 Day[2]
Minor Liquid Leak	2 Days[2]

1. DAY MEANS A 24 HOUR PERIOD FROM THE TIME OF LEAK DETECTION.
2. UNLESS PROHIBITED BY CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (CAL OSHA) STANDARDS.

33. Leaks from components shall be immediately minimized to stop or reduce leakage to the atmosphere. [District Rule 2.23, §302.1.b]

34. All leaks from critical components shall be minimized to the extent possible and shall be replaced with Best Available Control Technology equipment as determined in accordance with District Rule 3.4, NEW SOURCE REVIEW, during the next process unit turnaround. [District Rule 2.23, §302.1.c]

35. All repaired or replaced components shall be re-inspected per EPA Reference Method 21 by the Permit Holder within 30 days of the repair or replacement. [District Rule 2.23, §302.2]

36. A component or part which incurs five (5) repair actions for a liquid or major gas leak within a continuous twelve-month period shall be replaced with Best Available Control Technology equipment as determined in accordance with District Rule 3.4, NEW SOURCE REVIEW. [District Rule 2.23, §302.3]

37. Open-ended lines and valves located at the end of lines shall be sealed with a blind flange, plug, cap, or a second closed valve at all times except during draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs. [District Rule 2.23, §303]

38. Hatches shall be closed at all times except during sampling, adding process materials, or attended maintenance operations. [District Rule 2.23, §304]

39. All major components and critical components shall be clearly and visibly physically identified for inspection, repair, replacement, and record-keeping purposes. [District Rule 2.23, §401.1]

40. All major, critical, and inaccessible components except flanges and threaded connections shall be clearly identified in diagrams for inspection, repair, replacement, and record-keeping purposes. [District Rule 2.23, §401.2]

41. The information required for component (as defined in District Rule 2.23, FUGITIVE HYDROCARBON EMISSIONS) identification shall be submitted to the APCO upon request. [District Rule 2.23, §401.3]

42. The Permit Holder shall notify the APCO in writing of any change in the identification of a major component. [District Rule 2.23, §401.4]

43. All records of operator inspection and repair shall be maintained at the facility for the previous five (5) year period and made available at the time of District inspection. [District Rule 2.23, §501]

44. The Permit Holder shall maintain an inspection log, containing at a minimum, the following:
    a. Name, location, type of components, and description of any unit where leaking components are found;
    b. Date of leak detection, emission level (ppm) of leak, and method of leak detection;
    c. Date and emission level (ppm) of recheck after leak is repaired; and
    d. Total number of components inspected and a total number and percentage of leaking components found by component types. [District Rule 2.23, §502]

45. Records of leaks detected by a quarterly or annual operator inspection, and each subsequent repair and reinspection, shall be submitted to the APCO upon request. [District Rule 2.23, §503]

This permit does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the Health & Safety Codes of the State of California or the Rules and Regulations of the Yolo-Solano Air Quality Management District.

Mat Ehrhardt, P.E.
AIR POLLUTION CONTROL OFFICER

By:_____

Date of Issuance:_____